

Filed: May 6, 1998

rejected under 35 U.S.C. § 102(b) as being anticipated by Nilsson *et al.* "Padlock Probes: Circularizing Oligonucleotides for Localized DNA Detection" *Science* 265:2085-2088 (9/30/1994) ("Nilsson *et al.*"). Claim 6 stands as objected to as being an improper multiply dependent claim.

Applicant has cancelled Claims 1-6 without prejudice to Applicant's rights to pursue the subject matter of this claim in one or more continuation applications. Applicant has added new Claims 8-12. Support for the new claims can be found throughout the specification, and more particularly in originally filed Claims 1-6. No new matter is introduced by the new claims, and Applicant requests entry thereof into the instant application. After entry of the present amendment, Claims 7-12 will be pending for further examination. Attached hereto is an "Appendix of Pending Claims" providing the pending claims after entry of the present amendment.

Compliance With 37 C.F.R. §1.821-1.825

This amendment is accompanied by a floppy disk containing the above named sequence, SEQUENCE ID NUMBER 1, in computer readable form, and a paper copy of the sequence information. The computer readable sequence listing was prepared through use of the software program "PatentIn" provided by the PTO. The information contained in the computer readable disk is identical to that of the paper copy. This amendment contains no new matter. Applicant submits that this amendment, the accompanying computer readable sequence listing, and the paper copy thereof serve to place this application in a condition of adherence to the rules 37 C.F.R. § 1.821-1.825.

Substitute Declaration

The original Declaration filed for the above-referenced application incorrectly identified March 6, 1998 as the filing date for the U.S. National Phase of PCT/SE96 01119. A substitute "Declaration for Patent Application" is submitted herewith to correct this inadvertent error.

The substitute "Declaration for Patent Application" correctly identifies the filing date for the present application (the U.S. National Phase of PCT/SE96 01119) as May 6, 1998. In accordance with the Patent Cooperation Treaty, the present application is entitled to a priority date of September 8, 1995, which is the filing date of Swedish Application No.

9503117-5, to which PCT/SE96 01119 claims priority, to which the present application claims priority.

Revocation and Substitute Power of Attorney

Attached hereto is a Revocation and Substitute Power of Attorney thereby permitting the undersigned to act on Applicant's behalf.

The Objection Of Claim 6

In order to expedite prosecution of the remaining claims Applicant has cancelled Claim 6, thereby obviating the objection of this claim.

The Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 1-5 stand rejected under 35 U.S.C. § 112, first paragraph as lacking an enabling disclosure. Applicant disagrees with the Examiner's reasoning. However, in order to expedite prosecution of the remaining claims Applicant has cancelled Claims 1-5, thereby obviating the rejection of these claims under 35 U.S.C. § 112, first paragraph.

New Claims 8-12 depend from Claim 7. Claim 7 is enabled by the specification, this much the Examiner admits. Claims 8-12 depend from Claim 7 and is, therefore, more narrow in scope than Claim 7. It is legally and logically impossible for a dependant claim to be not enabled when the claim from which it depends is enabled. Therefore, Applicant respectfully submits that new Claims 8-12 are enabled.

The Rejection Under 35 U.S.C. § 102(b)

Claim 7 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Nilsson *et al.* As discussed above, the present application is entitled to a priority date of September 8, 1995. The publication date of Nilsson *et al.* is September 30, 1994, less than one year prior to the priority date of the present application. Thus, the rejection under Section 102 is properly made under Section 102(a) and not Section 102(b).

Prior art under Section 102(a) requires that the reference to be "by others". Applicant submits herewith a *Katz* Declaration under 37 CFR §1.132 indicating that the co-authors of Nilsson *et al.* (namely Nilsson, M.; Malmgren, H.; Samiotaki, S; Kwiatkowski, M.; and Chowdhary B.) did not contribute to the concepts presented in Nilsson *et al.*; rather, they merely worked under the supervision of the Applicant. Thus,

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the Nilsson *et al.* reference is not "by others", rather the concepts disclosed in Nilsson *et al.* are solely those of the Applicant. Thus, Nilsson *et al.* is not prior art against the present invention under Section 102(a).

Accordingly, the Applicant respectfully requests the Examiner to withdraw the rejection of Claim 7 under 35 U.S.C. §102 as being anticipated by Nilsson *et al.*

CONCLUSION

Applicant submits that all the claims are in condition for allowance and an early notification of such is solicited.

Respectfully submitted,

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June 5, 2001



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MARKED-UP VERSION

Paragraph beginning at page 7, line 30, has been amended as follows:

- A padlock probe oligonucleotide having the following sequence: 5' P-TGG TGT TTC CTA TGA-((HEG2)C-B)4(HEG)2-AAG AAA TAT CAT CTT3' (SEQ ID NO:1), wherein P is a phosphate residue, HEG is hexaethylene glycol and C-B is a biotinylated C residue, was synthesized using a commercial DNA synthesizer. The two ends of the oligonucleotide were capable of base-pairing adjacent to each other with exon 9 of the CTFR gene contained in the double stranded plasmid pUC 19. -

On page 9, immediately preceding the claims, the enclosed Sequence Listing was added to the text.

7. (Amended) A composition for targeting a double stranded nucleic acid and inhibiting replication thereof, wherein said composition comprises an effective amount of a padlock probe oligonucleotide having two free nucleic acid end parts which anneal to two closely adjacent sequences within said double stranded nucleic acid so that the padlock probe is capable of circularization by joining said free end parts and catenating with a target sequence within said double stranded nucleic acid, for inhibition of replication.
8. (New) The composition according to Claim 7 further comprising a pharmaceutical carrier.
9. (New) The composition according to Claim 8, further comprising a linking agent, wherein said linking agent is capable of joining said two free nucleic acid end parts.
10. (New) The composition according to Claim 9, wherein said linking agent is a ligase enzyme.
11. (New) The composition according to Claim 8, wherein said end parts further comprise a mutually chemically reactive compound.
12. (New) The composition according to any one of Claims 7-11, wherein said padlock probe comprises a non-natural nucleic acid or polymer.